

REMARKS

The Official Action of 29 November 2007 has been carefully considered and reconsideration of the application as amended is respectfully requested.

Claim 1 has been amended further to limit the composition of each of the claimed low-permeability resin layers by narrowing the selection of possible resins from which the resin layers may be formed. Specifically, an ethylene-vinyl alcohol resin (EVOH resin) and a polybutylene naphthalate resin (PBN resin) have been deleted as possibilities for forming each of the low-permeability resin layers. No new limitations have been added to the claim. Claims 4-6 and 8 have been canceled.

Rejections in view of Ito

Claims 1 and 7 were rejected under 35 USC 102(e) as allegedly being anticipated by Ito. However, this rejection relies on an alleged teaching in Ito of a plurality of low-permeability resin layers formed from PBN and ETFE respectively, whereas claim 1 after amendment requires *inter alia* (a) that each of the low-permeability resins comprises ETFE, LCP or PPS or a mixture thereof, and (b) that each of the recited low-permeability resin layers is different from the other. Since Ito does not show or suggest forming a low-permeability resin from PPS or LCP, Ito cannot meet these requirements so as to anticipate the claims as amended.

Certain claims were also rejected under 35 USC 103(a) as allegedly being unpatentable over Ito in view of Fisher. For this rejection, the Examiner

acknowledges that Ito does not show or suggest a low-permeability resin layer including a liquid crystallized polymer (LCP), but considers that the secondary reference, Fisher, teaches that it is old and well known to substitute LCP for layers which normally can be formed of fluoropolymers. Applicant respectfully disagrees.

First, Applicant respectfully notes that, even assuming for the sake of argument that Fisher did teach the substitution of LCP for fluoropolymers generally, the substitution would **not** result in the claimed invention. In this connection, Ito teaches that the low-permeability layer described therein is composed of PBN (see Ito at, e.g., Abstract, paragraph [0012] and claim 1), whereas the inner, sour-gasoline resistant layer is composed of a fluororesin or a polyolefin resin. A substitution of the LCP for the fluororesin would result in a fuel hose having an LCP resin layer and a PBN resin layer; i.e., it would not result in the invention as defined by the claims as amended.

Moreover, although Fisher does teach that the second polymeric material described therein may be formulated from a fluoropolymer or LCP, it does **not** teach that these two (2) polymers may be substituted for each other in all applications. Rather, Fisher teaches that either of these polymers would be suitable as a **transparent** (window) sidewall segment in the two-segment tubing described therein (Fisher at column 6, lines 13-43). Aside from teaching that the polymer must make the sidewall segment transparent, there is nothing in Fisher that would show or suggest that an LCP has properties that would make it suitable for sour gasoline resistance or that, when plasma treated, hydroxyl groups of the modified LCP would interact with carboxyl groups of PBN as required in the fuel hose described by Ito (Ito at paragraph [0013]).

Accordingly, Applicants respectfully submit that the amendments to the claims have removed the basis for this rejection.

Certain claims were also rejected under 35 USC 103(a) as allegedly being unpatentable over Ito in view of Morohoshi et al. For this rejection, the Examiner acknowledges that Ito does not show or suggest a low-permeability resin layer including a liquid crystallized polymer (LCP), but considers that the secondary reference, Morohoshi, teaches that it is old and well known to substitute LCP for layers which normally can be formed of PBN. Applicant respectfully disagrees.

First, Applicant respectfully notes that, as discussed above, PBN is taught to be an essential component of the Ito fuel hose described such that there would be no motivation or reason to substitute LCP therefore. See MPEP 2143.01(VI) ("If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."). Moreover, Applicant cannot find any teaching in Morohoshi as to the equivalence of PBN and LCP and the Examiner respectfully has not pointed to any teaching in Morohoshi to this effect. Rather, Morohoshi teaches that PBN is essential as at least one layer of the resinous tube described therein (see, e.g., Abstract), and thus respectfully teaches away from the substitution on which the Examiner relies for the rejection. The Examiner is respectfully requested to point to a portion of Morohoshi that supports the rejection or to withdraw it. See MPEP 2142 ("rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with

some rational underpinning to support the legal conclusion of obviousness.").

Rejections in view of Nishino

Claims 1 and 7 were also rejected under 35 USC 102(b) as allegedly anticipated by Nishino. However, this rejection relies on an alleged teaching in Nishino of a plurality of low-permeability resin layers formed from PBN and ETFE respectively, whereas claim 1 after amendment requires *inter alia* (a) that each of the low-permeability resins comprises ETFE, LCP or PPS or a mixture thereof, and (b) that each of the low-permeability resin layers is different. Since Nishino does not show or suggest forming a low-permeability resin from PPS or LCP, Ito cannot be said to meet these requirements so as to anticipate the claims as amended.

Certain claims were also rejected under 35 USC 103(a) as allegedly being unpatentable over Nishino in view of Morohoshi. For this rejection, the Examiner acknowledges that Nishino does not show or suggest a low-permeability resin layer including a liquid crystallized polymer (LCP), but considers that the secondary reference, Fisher, teaches that it is old and well known to substitute LCP for layers which normally can be formed of fluoropolymers. Applicant respectfully disagrees.

First, Applicant respectfully notes that, even assuming for the sake of argument that Fisher did teach the substitution of LCP for fluoropolymers generally, the substitution would **not** result in the claimed invention. In this connection, Nishino teaches that the middle layer described therein is composed of PBN (see Nishino at, e.g., Abstract and claim 1), whereas the innermost layer may be a fluorine type resin (see Abstract). A substitution of the LCP for the fluorine type resin would result in a fuel tube having an LCP resin layer and a PBN resin layer; it would not result in the

invention as defined by the claims as amended.

Moreover, although Fisher does teach that the second polymeric material described therein may be formulated from a fluoropolymer or LCP, it does **not** teach that these two (2) polymers may be substituted for each other in all applications. Rather, Fisher teaches that either of these polymers would be suitable as a **transparent** (window) sidewall segment in the two-segment tubing described therein (Fisher at column 6, lines 13-43]. Aside from teaching that the polymer must make the sidewall segment transparent, there is nothing in Fisher that would show or suggest that an LCP has properties that would provide the barrier for fuel and kink-proof properties required for use in the fuel tubes of Nishino (see Nishino Abstract).

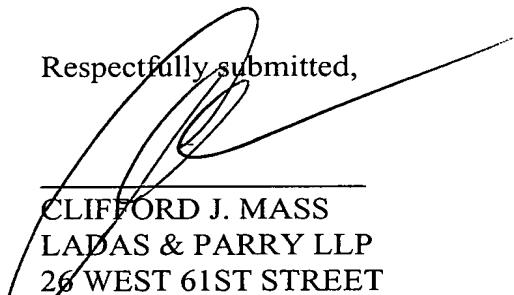
Certain claims were also rejected under 35 USC 103(a) as allegedly being unpatentable over Nishino in view of Morohoshi et al. For this rejection, the Examiner acknowledges that Nishino does not show or suggest a low-permeability resin layer including a liquid crystallized polymer (LCP), but considers that the secondary reference, Morohoshi, teaches that it is old and well known to substitute LCP for layers which normally can be formed of PBN. Applicant respectfully disagrees.

First, Applicant respectfully notes that, as discussed above, Nishino teaches PBN to be an essential component of the fuel hose described therein such that there would be no motivation or reason to substitute LCP therefore. See MPEP 2143.01(VI) (“If the proposed modification or combination of the prior art would change the

principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.”). Moreover, Applicant cannot find any teaching in Morohoshi as to the equivalence of PBN and LCP and the Examiner respectfully has not pointed to any teaching in Morohoshi to this effect. Rather, Morohoshi teaches that PBN is essential as at least one layer of the resinous tube described therein (see, e.g., Abstract), and thus teaches away from the substitution on which the Examiner relies for the rejection. The Examiner is respectfully requested to point to a portion of Morohoshi that supports the rejection or to withdraw the rejection. See MPEP 2142 (“rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”).

In view of the above, Applicant respectfully submits that all rejections and objections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,

  
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